REMARKS

Applicants have addressed the confusion over Figures 27-29 by deleting all references to Figures 27-29 in the specification.

CONCLUSION

Applicants respectfully request that the foregoing amendment be entered.

Respectfully submitted,

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Attorney for Applicants

Attachment(s)

Dated:

AMENDED SPECIFICATION TEXT
INCORPORATING AMENDMENTS
IN RESPONSE TO OFFICE ACTION DATED 1/5/2004
FOR SERIAL NO. 10/677,238

Page 7, lines 16-22 of the original specification, should be deleted as follows:

~~Fig. 27 is a graphic illustration of the effects of superficial gas velocity on the transit time under two different pressures at 20°C;~~

~~Fig. 28 graphically shows the change in the amplitude ratio (A/A_o) of transmitted ultrasonic signals obtained 20" above the gas distributor within the reactor as a function of gas velocity at two different pressures at 200°C; and~~

~~Fig. 29 graphically illustrates the effects of superficial gas velocity on ultrasonic signal transit time under two different pressures at 200°C.~~

Page 25, line 3 through Page 26, line 2, of the original specification, should be deleted as follows:

~~FIG. 27 graphically illustrates the effects of superficial gas velocity on ultrasonic signal transit time under different pressures of 14.7 and 214.7 psig at 20°C. The results were obtained 20″ above the gas distributor. Transit time does not have an apparent correlation with gas velocity, as transit time is approximately 96 μsec at 214.7 psig and 96.5 usec at 14.7 psig. These results suggest that the transit time of an ultrasonic signal is not affected by the nitrogen flow rate within the bubble column reactor 110 obtained 20″ above the gas distributor.~~

~~FIG. 28 graphically shows the change in the amplitude ratio (A/A_0) of transmitted~~

~~ultrasonic signals within the bubble column reactor 110 obtained 20″ above the gas distributor as a function of gas velocity at pressures of 114.7 and 214.7 psig at 200°C. The A/A$_0$ ratio reduces slowly at 14.7 psig. However, this ratio decreases more slowly at 214.7 psig. These results further suggest that the hydrodynamics are different under high pressure conditions versus under low pressure conditions.~~

~~FIG. 29 graphically illustrates the effects of superficial gas velocity on transit time at pressures of 114.7 and 214.7 psig at 200°C. These results were obtained 20″ above the gas distributor. Transit time does not have an apparent correlation with the gas velocity. Transit time is approximately 143 usec for both pressures. These results suggest that the transit time of an ultrasonic signal is not affected by nitrogen flow rate or by the pressure within the bubble column reactor. These results further indicate that the inventive ultrasonic adapter and cooling chamber combination of the present invention could provide accurate ultrasonic measurements at temperatures as high as 200°C, pressures as high as 214 psig, and gas velocities as high as 11 cm/sec.~~